CM - This may resolve our problems.

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December 20, 1974

Mrs. Chris Menze
Solid Waste Management
Division of Stream Pollution Control Board

Dear Mrs. Menze,

To confirm our phone conversations of December 19 and 20 on the leaching study of calcium sulfate, I shall write this memo.

In the original leaching studies on calcium sulfate of November 20, 1974, that was submitted to your office, there was a question on the low pH of the filtrate. We used deionized water for that study which had a low pH of 4.60. We used this water to leach the calcium sulfate because of its high purity and then if anything was leached out of the calcium sulfate we could analyze for the impurities caused by the calcium sulfate. Unfortunately, we did not realize pH would be one of your important concerns. If you will notice in the leaching studies after the first fraction of water had gone through the calcium sulfate, the second and third fractions of the pH was practically the same as the pH of the water going into the calcium sulfate.

Your concern of the pH of the filtrate made us wonder and we rechecked our deionized water again today and still got a pH of 4.60. We then checked distilled water at different locations in our company and found it to be below 6 so we again did the leaching study using our own tap water which has a pH of 8.

This leaching study was carried out on the calcium sulfate produced in production on this date as per the original procedure. This is referred to below as wet calcium sulfate. A duplicate test was run on a portion of the same calcium sulfate after it had been repulped in the manner that all the calcium sulfate will be after March 1, 1975. Results of this test is as follows:

Sample	First 200 ml of Water Through Sample	Second 200 ml of Water Through Sample	Third 200 ml of Water Through Sample
50 gms $CaSo_4$ from Plant (wet)	3.16	6.24	7.65
50 gms of Repulped $CaSo_4$	7.41	7.45	7.49
Water Used in Test	7.98	8.02	8.04

P. D. Francis
Manager, Process & Quality Control
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PDF/sjn

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